I N S E C T P E S T S U R V E Y B U L L E T I N

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THE MORE IMPORTANT RECORDS FOR JULY 1934

The grasshopper situation in the Great Plains remains unchanged. The hoppers are rapidly maturing and egg laying is taking place. Control measures will be continued throughout August over much of the territory. The outbreak in Wisconsin is reported as being the worst that has ever occurred in that State. In most of the infested area the campaign for the control of these insects has reduced damage to a low figure.

During the month there was a general outbreak of sod webworms over northern Indiana, central and north-central Illinois, and eastern Nebraska.

Red spiders are reported as doing unusual damage to a variety of plants. Reports indicate that because of the dry weather they are troublesome from Connecticut to Maryland, westward to Kansas, and southward to the Gulf. They are also occasioning considerable trouble in Kern and Los Angeles Counties, California.

The first of the annual wheat surveys to be reported indicates that the hessian fly infestation in Ohio was more than twice as severe as it was last year. Infestation was also severe in east-central Indiana.

A serious outbreak of the black grain-stem sawfly developed in western Pennsylvania and eastern Ohio.

During the month first-brood chinch bugs matured and flights were reported from all parts of the infested territory. Good growing weather in the Ohio River Valley materially improved corn-growing conditions, despite chinch bug damage.

Corn ear worm damage is reported from practically the entire United States. In the East Central States it was more abundant than it has been in several years, particularly in the fruit of tomatoes.

Reports from Nevada and California indicate that in general injury by the alfalfa weevil was less severe than last year.

This year the cotton leaf worm was first reported from Mississippi on July 26, early enough for broods of moths to develop, fly northward, and damage late fruit in the northern States.

Mature larvae of the codling moth were observed in New York by the middle of July and by the first of the month in Maryland and southern Pennsylvania. Second-brood moths began to emerge in Maryland during the first week in July, the peak of emergence occurring the second week. In the East-Central States development is about 2 weeks in advance of last year.

The apple aphid appeared in considerable numbers in the New England and Middle Atlantic States.

Plum curculio infestation in the Georgia peach belt was heavier than usual and Elbertas will be attacked by second-brood larvae. In Alabama the infestation of Carman and Hiley peaches was the heaviest since 1918.

The grape leafhopper was very prevalent in the Lake region from New York to Minnesota, and some damage was reported southward through Nebraska to Kansas.

The green citrus aphid was reported as being more abundant than ever before recorded for this time of year in Florida, and as doing some damage to citrus in Louisiana. This insect also apparently increased in Puerto Rico.

The false chinch bug was very generally reported as damaging a variety of ornamentals and truck crops from Maryland westward to South Dakota and in the Great Basin region.

The tomato pin worm seriously damaged tomato plants in a greenhouse at Gulfport, Miss. This is the first record of this insect in that State, although it was observed by a grower last year, damaging both greenhouse and field-grown plants.

The Mexican bean beetle evidently suffered no serious setback by the severe winter of 1933-34, as it was quite generally abundant throughout its entire known range, northward to New Hampshire and Vermont.

The pea aphid was so abundant in New York State that in some areas as high as 25 percent of the late peas were plowed under. A similar situation was reported from Idaho and Washington.

The harlequin bug was evidently forced back by the severe winter to its normal range, as no reports have been received this year from the Northern States, into which it migrated during the past few years.

Heavy defoliation by the forest tent caterpillar was reported from the northern New England States.

The screw worm infestation in Florida and Georgia continued to increase during the month, being responsible for the loss of hundreds of cattle and hogs and some horses in the northern part of Florida and in southern Georgia.

THE MORE IMPORTANT RECORDS IN CANADA FOR JULY 1934

Conditions accompanying the drought have accentuated the grasshopper outbreak in the Prairie Provinces, particularly in Manitoba and Saskatchewan. The winged insects are migrating, but actual crop damage is limited to the southern districts. In Manitoba there is still a shortage of moisture and crops have suffered considerably from hot, dry weather, particularly in southern and western sections. Large numbers of grasshoppers have reached the winged stage and several extensive flights in northerly and easterly directions have occurred. In eastern Manitoba, where good control was obtained, poisoning operations ceased early in July, but were continued a few days longer in western Manitoba. In Saskatchewan control efforts have succeeded in keeping losses from grasshoppers generally low in areas having moisture sufficient for a fair crop, but in heavily infested, drier areas, it became necessary to cut much of the corn for fodder. General drought and warm weather in mid-July tended to increase hopper damage, and the situation is increasingly critical in the large southern area where moisture has been below normal throughout the season. In much of the central and west-central crop districts of Saskatchewan the outbreak is apparently largely under control for this season, unless extensive flights occur. Migrations are reported in various sections. In Alberta the control campaign has held crop losses from this pest to a minimum. A large proportion of the insects were winged by early July and by the middle of the month extensive migrations were taking place, with population increases reported from the foothills area. Some local losses were reported, but in most areas the grasshoppers were under control.

In Saskatchewan the season has been generally conducive to exceptionally severe wireworm injury.

In eastern Ontario a severe local outbreak of white grubs resulted in crop damage amounting to many thousands of dollars. Heavy flights of June beetles occurred this spring in southern Quebec, causing defoliation of trees and shrubs. Local flights were reported in Ontario.

The caragana beetle is again abundant and destructive to caragana and beans in parts of the Prairie Provinces. Infestations of several other species of blister beetles have been reported.

The striped cucumber beetle caused notable damage to untreated cucurbits in parts of New Brunswick and Ontario.

The rose chafer has again been a troublesome pest of garden plants, shrubs, and small fruits in sandy sections of southern Ontario.

Indications are that the codling moth will again cause serious losses in some orchards in the Niagara district, Ontario.

The apple curculio and the plum curculio are reported to have increased in abundance over previous years in orchard sections of southern Quebec.

Outbreaks of the rosy apple aphid and the black cherry aphid were reported in some orchards of the Niagara district, Ontario.

Forest tent caterpillars caused conspicuous defoliation of poplars and certain other trees in parts of eastern Canada, Saskatchewan, and eastern British Columbia. The fall cankerworm defoliated many valuable windbreaks in Manitoba and in parts of Saskatchewan.

G E N E R A L F E E D E R S

GRASSHOPPERS (Acrididae)

Indiana. J. J. Davis (July 28): On June 21 grasshoppers (Melanoplus bivittatus Say) were first reported as abundant in Vanderburg County, where they were attacking corn and soybeans. A personal inspection on July 10 revealed an abundance of hoppers but as yet there is no serious damage, partly because of the excellent growth of the plants. The area infested is overflow ground.

Wisconsin. H. F. Wilson (June 30): We have had the worst outbreak of grasshoppers ever known to occur in Wisconsin. The infestation extends from west to east through the northern part of the State.

E. L. Chambers (July 30): Active poisoning is being continued in the extreme northern counties where the grain is being cut and the grasshoppers are migrating into corn and potatoes from hay and small-grain fields. Egg laying is taking place throughout the entire area. In most of the heavily infested counties large numbers of grasshoppers are being killed by thread worms and fungous diseases following several days of wet weather.

Minnesota. A. G. Ruggles (July 28): Grasshoppers are very abundant.

North Dakota. J. A. Munro (July 18): Crop destruction by grasshoppers has been held at a low figure, although spring infestation indicated almost complete destruction in many areas.

South Dakota. H. C. Severin (July 5): Grasshoppers are not nearly so abundant as we had every reason to believe they would be. This is probably due to the drought, which last fall, winter, and spring dried out and destroyed large numbers of eggs and which undoubtedly cut down the food supply so that there was not sufficient food of the proper type to keep some species; to the blowing of soil, which covered up immense numbers of eggs, especially along fences and roadsides; to heavy rains in some localities; and finally to the effective poisoning campaign being conducted in the State.

A. L. Ford (July 17): There are four distinct areas of heavy infestation, the largest of which is in the southeastern part of the State, extending along the Missouri River northward to Jerauld County and westward to Gregory. A smaller area along the western border of the State from Lawrence to Custer Counties; two smaller areas, one centering in Sully County and extending into Potter and Hughes and southeastern Armstrong and Dewey Counties, the other in northern Haakon and southern Ziebach Counties. M. bivittatus and M. mexicanus predominate throughout the State, being present in all sections. In the area which includes parts of Lawrence, Pennington, and Custer Counties there is a serious outbreak of the warrior grasshopper, C. bellucida. M. femur-rubrun DeG. is fairly abundant throughout the eastern half of the State, especially in alfalfa, but this species

does not predominate. As for M. differentialis Thos., a very peculiar situation has developed in this State. The fall survey showed that eggs of M. differentialis and M. bivittatus were present in nearly equal numbers in the heavily infested sections, and that the hatch of M. differentialis eggs, which occurred about two weeks later than that of the M. bivittatus, was about as we expected. In fact, in many places there was a very heavy hatch of the latter species. At present, however, there are very few M. differentialis hoppers in the State. What has happened to them is conjecture on our part. Apparently there has been some element in our very unusual weather that the young M. differentialis hoppers could not resist.

Nebraska. M. H. Swenk (July 17): The grasshopper situation has continued with unabated severity during June and up to the present time. About the same areas that showed a severe infestation by the middle of June are now infested, and all the poisoned bran bait has been used that could be obtained through the Federal agencies.

Oklahoma. C. F. Stiles (July 23): Grasshoppers are fairly numerous in some of the western counties, especially along roadways and fence rows, and in some instances have completely destroyed late-planted feedstuffs, such as Sudan grass and grain sorghums. There are several species in the fields, but the yellow-legged grasshopper is the most prevalent in Kingfisher County.

Montana. A. L. Strand (June 28): The grasshopper campaign is progressing satisfactorily in most counties. In areas where the hoppers were more abundant than was expected there is a shortage of bait. Over most of the State good crops have demonstrated that the poisoning of the grasshoppers was very much worth while.

Wyoming. C. L. Corkins (July 26): We are now gradually bringing to a close the grasshopper control campaign which has been under way in 20 of the 23 counties of the State. When the campaign is completed a little over 6,000 tons of dry bait will have been used. So far the injury to crops has been only about 1 percent, but most of the range area in the eastern part of the State has been severely damaged.

Idaho. C. Wakeland (July 24): The grasshopper control campaign is nearly at an end. Grasshoppers have not caused extensive serious injury in any but isolated small communities because a well-coordinated control campaign has been carried out, using Federal bait. Some injury is being reported by farmers in areas where grasshoppers are migrating into cultivated crops from adjoining range lands. These hoppers are in the adult stage and control is not so satisfactory as earlier in the season. However, most communities are obtaining protection and there is very little serious injury.

Utah. C. J. Sorenson (July 27): M. bivittatus and M. femur-rubrum are moderately abundant in the Uintah Basin and in northern Utah.

Nevada. G. G. Schweis (July 20): The grasshopper control campaign has

been carried on in 13 counties. Results have been satisfactory in nearly all cases, especially in districts where the projects have been under direct supervision. The principal species present are: C. pellucida, M. mexicanus, and M. bivittatus.

Arizona. C. D. Lebert (July 24): Delayed hatches appeared late in June and early in July in the Salt River Valley. The adult population of the early hatch have been very well taken care of by the poisoned-bran campaign effected during the past 6 or 8 weeks. Incomplete reports from Navajo County indicate that the situation which was serious late in June is now much better. Poisoned bran is now being applied over approximately 1,200 acres with very satisfactory results.

California. Kern Co., Calif. Monthly News Bull. (July): The major insect damage to field crops was caused by grasshoppers, which threatened serious injury to the cotton crop in some areas. The commissioner obtained 25 tons of poison bran from the Government to be used in this work. Serious damage was prevented by the timely application of this material.

MORMON CRICKET (Anabrus simplex Hald.)

Montana. A. L. Strand (June 28): The Mormon cricket has increased enormously since last year. In addition to the counties of Big Horn and Carbon, where a major outbreak was expected and occurred, crickets have shown up in Judith Basin, Fergus, Pondera, Glacier, Choutéau, Lake, and Sanders Counties.

Wyoming. C. L. Corkins (July 26): The Mormon cricket outbreak previously reported is under control with little loss of crops.

Utah. G. F. Knowlton (July 9): A report of a rather severe outbreak of Mormon crickets on Cedar Mountain has been received.

Nevada. G. G. Schweis (July 2): The threatened outbreak failed to materialize. Rains that freshened the mountain vegetation apparently changed the line of march, so the bands turned again toward the mountains. One band nearly a quarter of a mile wide has been crossing the highway near Carlin for nearly 3 weeks.

CUTWORMS (Noctuidae)

Florida. S. E. Crumb (July 8): Climbing cutworms, which seldom cause appreciable damage to mature tobacco, were quite abundant in certain tobacco sheds in Gadsden County. They have been determined as Lycophotia margaritosa saucia Hbn. and Prodenia ornithogalli Guen.

Oregon. D. C. Mote and assistants (June 29): The yellow-striped armyworm (P. ornithogalli) is present in a field north of Corvallis. This worm has been migrating northward for the past several years.

California. A. E. Michelbacher (July 22): In the territory about Tracy the larvae of P. praefica Grote, and the alfalfa caterpillar (Eurymus eurytheme Bdv.) were found in fair abundance in some fields.

SOD WEBWORMS (Crambus spp.)

Indiana. J. J. Davis (July 28): Webworms are becoming abundant in lawns and golf greens throughout the northern half of the State.

Illinois. W. P. Flint (July 18): A general outbreak of sod webworms is present over the central and north-central parts of the State. It has been very largely confined to golf greens, an extremely heavy infestation having developed in some courses.

Nebraska. M. H. Swenk (July 17): Sod webworms did considerable damage to lawns and golf greens late in June and early in July in the vicinity of Lincoln.

WHITE GRUBS (Phyllophaga spp.)

Ohio. E. W. Mendenhall (July 24): White grubs are quite injurious in strawberry plantations in Fairfield County.

Kentucky. W. A. Price (July 25): White grubs very common in lawns and strawberry patches. Fields planted to strawberries in the spring of 1934 are now badly infested.

Tennessee. G. M. Bentley (July 21): P. ephilida Say is very abundant in the State at this time. At various places large swarms are eating heavily on shade and apple foliage. The duration of attack is brief.

GREEN JUNE BEETLE (Cotinis nitida L.)

Pennsylvania and Delaware. E. P. Felt (July 24): The green June beetle has been reported as numerous near Philadelphia, Pa., and near Wilmington, Del.

Ohio. T. H. Parks (July 10): Those beetles were received from Adams and Hamilton Counties with the statement that they were flying about in lawns. Specimens were also observed in Licking County. No injury from larvae has been reported.

Missouri. L. Haseman (July 23): Green June beetles have been very abundant, clogging our codling moth bait traps.

Kansas. H. R. Bryson (July 25): C. nitida is reported to be injuring peaches near Chanute; as many as 100 beetles to the tree were observed.

A WIREWORM (Heteroderes laurentii Guer.)

Georgia. K. L. Cockerham (June 23 and 27): Discoveries in Decatur, Thomas, and Chatham Counties constitute the first authentic records of this pest's presence in the State of Georgia.

COMMON RED SPIDER (Tetranychus telarius L.)

New York. E. P. Felt (July 24): A very severe infestation on linden was observed at Old Westbury, L.I., the leaves on the lower two-thirds of the top being very badly disfigured.

Maryland. E. N. Cory (July 21): The red spider is attacking evergreens and flowering plants over the entire State.

Ohio. E. W. Mendenhall (July 17): The red spider is quite injurious to arborvitae planted near houses in Springfield.

Indiana. J. J. Davis (July 28): The red spider damaged moonflower vine at Winamac on July 13. Reports of red spider abundance on evergreens were received from Plymouth and Argos the last of June. Since the last of June a number of reports of injury to beans have been received from central Indiana.

Illinois. W. P. Flint (July 18): Specimens are being received daily, especially from evergreens. Injury, accentuated by the extended drought, is somewhat more severe than normal.

Kentucky. W. A. Price (July 25): The red spider is very injurious to evergreens and sycamore trees in the bluegrass area.

Minnesota. A. G. Ruggles (July 28): Red spiders are very abundant on raspberries and evergreens and one apple tree is covered with them.

Louisiana. H. L. Dozier (July 17): The common red spider is extremely abundant in New Orleans, working on lima beans, dahlias, and ladyslippers and, together with the extreme heat of the past few weeks, is proving very destructive. (July 19): Red spider is working on citrus foliage.

Mississippi. J. M. Langston (July 23): Serious injury to phlox was reported from Byhalia, Marshall County, on July 9, while arborvitae plants at Clarksdale, Coahoma County, were reported to be heavily infested on July 12. Rather heavy infestations were observed during the past few days on cotton growing in fence corners and near old buildings in Tunica and several other Delta counties.

Kansas. H. R. Bryson (July 25): Owing to the dry weather red spiders have been injurious to evergreens and beans at Manhattan and were attacking apple trees at Oxford.

Utah. C. J. Sorenson (July 27): Red spiders are abundant on apple in the Provo district.

California. Kern Co., Calif. Monthly News Bull. (July): The red spider has been our most destructive insect pest. It first appeared in March, and weather conditions have been ideal for its increase. It has been necessary to spray several times, and many trees that have not been

sprayed have turned completely brown from spider injury.

H. J. Ryan (July 24): The two-spotted mite has been unusually severe on bush berries in Los Angeles County.

C E R E A L A N D F O R A G E - C R O P I N S E C T S

WHEAT

HESSIAN FLY (Phytophaga destructor Say)

Ohio. T. H. Parks (July 18): The annual wheat insect survey by the Ohio entomologists just before harvest showed the average infestation of the straws to be 15.54 percent, as compared with 8.1 percent in 1933. Thirty-four wheat counties were visited and 10 to 12 fields were inspected in each county. County infestations ranged from 2 to 46 percent. Nineteen counties showed marked increases, 7 showed decreases, and in 8 the percentage of infestation remained about the same as in 1933. The insect has increased most in the northwestern quarter of the State. Considerable lodging of straw occurred in Wood, Seneca, Sandusky, and Huron Counties. The most heavily infested fields were in Wood County, where three fields each average 70 percent infestation. All of them were sowed 2 or 3 days before the safe-sowing dates. In many fields sowed after the safe-sowing dates the infestation averaged between 30 and 50 percent. No serious damage was caused by the fall brood, the great increase being due entirely to the spring brood.

BLACK GRAIN-STEM SAWFLY (Trachelus tabidus Fab.)

Pennsylvania. E. J. Udine (July): An outbreak occurred in the counties of Indiana, Armstrong, Butler, northern Westmoreland, Allegheny, Mercer, Lawrence, and Beaver.

Ohio. J. S. Houser (July 31): This sawfly was found in Ohio for the first time this year. The infestation centers in Mahoning, Columbiana, Carroll, Harrison, and southern Trumbull Counties, and light infestations occur in northern Trumbull, Portage, Stark, eastern Wayne, Tuscarawas, Belmont, and northern Monroe Counties. The most severely infested field of wheat had 68 percent and several other fields in the area of greatest abundance had 50 percent or more of the stems infested. One field of rye averaged 16 percent infestation. The crop loss is great. (Det. C. C. Hill)

CORN

CHINCH BUG (Blissus leucopterus Say)

Ohio. T. H. Parks (July 18): The chinch bug battle over, we find that 50 of the 88 counties required aid in controlling the insect with barriers. This was the worst infestation for many years, although very few fields of corn were destroyed, good growing weather having

helped it. Small grains did not suffer much. Serious injury occurred in several northeastern counties and particularly in Geauga County, where for many years previous the insect has not been a pest. Bugs began moving out of the wheat in central counties about June 20 and in northeastern Ohio about July 1. Some reports were received of injury to lawns.

Indiana. J. J. Davis (July 28): Mature bugs are plentiful and a few recently hatched bugs are common in most cornfields. Yesterday in De Kalb County we observed several that had just changed to adults. They were apparently some of the last of the first generation to mature. Weather conditions have been favorable to the bug.

Illinois. W. P. Flint (July 18): The first-brood chinch bugs have nearly all matured, except in the extreme northern part of the State. General flights have been occurring daily during July and the bugs are now very thoroughly distributed over the cornfields. Since the first of July showers have occurred at frequent intervals in most sections of the State. The rainfall has not been sufficiently heavy to cause the death of any of the bugs, but has greatly improved the condition of the corn. The damage from the bugs will not be as heavy as was believed last month, but may still run to 30 or 40 percent of the corn crop.

Michigan. R. Hutson (July 16): The most northern chinch bug infestation is at Morrice in Shiawassee County. (July 23): The chinch bug is very abundant.

Wisconsin. E. L. Chambers (July 30): Chinch bugs have been showing up in large numbers in Buffalo, Pierce, Pepin, Kenosha, and Racine Counties, and have been very destructive in small patches of corn and Sudan grass, and have done serious injury to small grains that were beginning to head. They did not develop in destructive numbers until after the middle of July, when most of them appeared in the winged form; consequently, very few barriers were attempted.

Minnesota. A. G. Ruggles (July 28): The chinch bug is very abundant and is doing considerable damage in Goodhue County.

Nebraska. M. H. Swenk. (July 15): The infestation in southeastern Nebraska did not expand in extent after June 20. The migration of the young bugs was at its height by June 10 and continued heavily until about June 20, when it gradually began to fall off. Within less than a week large numbers of adult winged bugs were noted, flying from the small grain into the corn; and the creosote barriers then began to diminish steadily in effectiveness. Nevertheless, over 100,000 gallons of creosote was distributed to the farmers in 14 southwestern Nebraska counties, and it is reported that a very large acreage of corn has been saved. There are numbers of the adults in the cornfields at this time, however, and the results of the attack by the second brood are still to be learned.

Kansas. H. R. Bryson (July 25): Chinch bugs are only moderately abundant at Manhattan. Corn, sorghums, and grassed-in fields, which furnish

food materials for the second generation, are drying up on account of the high temperatures and the lack of soil moisture. Old bugs are scarce in corn and sorghums, where they were very abundant after harvest. No eggs and a very few nymphs, representing all instars, could be found between the leaf sheath and the stalk in young sorghum plants. Reports of abundance have been received from Downs, Osborne County. Concentrated and well-planned efforts to control the chinch bug and protect the rowed crops with barriers resulted in a State-wide reduction in the damage that might otherwise have occurred.

CORN EAR WORM (Heliothis obsoleta Fab.)

Connecticut. R. B. Friend (July 23): Larvae have been found but were not common in Stratford, Hamden, and Glastonbury during July.

New York. N.Y. State Coll. Agr. News Letter (July): First larvae of the corn ear worm were observed early in the month on Long Island. By the middle of the month they were seriously abundant. (Abstract J.A.H.)

West Virginia. L. M. Peairs (July 21): The corn ear worm is moderately abundant.

W. J. Schoene (July 25): The corn ear worm has been reported frequently from the mountainous part of the State as causing serious injury to tomatoes and to fields of young corn. Although we have a little injury every year from this species, it is much more conspicuous than usual.

Virginia. H. G. Walker (July 26): The corn ear worm is from moderately abundant to very abundant on corn and tomatoes at Norfolk.

Illinois. W. P. Flint (July 18): The corn ear worm has been unusually abundant. Most of the injury occurred from the boring of the worms in the curl of the corn leaf. Field corn is just beginning to silk in most fields in central Illinois.

Ohio. T. H. Parks (July 18): Corn ear worms ruined the early crop of tomatoes in counties along the Ohio River. Many samples are being received, together with injured corn leaves, showing where the larvae fed on the opening leaves in the heart of young plants. We look for heavy damage to the ears later.

N. F. Howard (July 19): A serious infestation on tomato occurred in the Marietta district late in June and early in July. Twenty to 40 percent of the early clusters of tomatoes were wormy. I estimate the loss to the growers as somewhere between $25,000 and $35,000. Several years ago the tomato fruit worm began to be a factor in early tomatoes and became more serious until last year it constituted a real problem. This year it is more serious than ever, notwithstanding the severe winter of 1933-34.

Indiana. J. J. Davis (July 28): From June 27 to July 9, numerous reports were received from all sections of the State, especially from southern Indiana, of an abundance of the corn ear worm working in the

tassels. This indicates a heavy infestation of ears a little later in the season.

Kentucky. W. A. Price (July 25): Damage is more severe than at any other time during the past 5 years. In many cornfields one-fourth of the stalks were ruined before the tassels appeared. Practically every roasting ear on the Lexington and neighboring markets contains worms.

Wisconsin. E. L. Chambers (July 30): The corn ear worm is apparently now on the decline, after the first generation had destroyed enormous quantities of sweet corn and early field corn, the damage in some fields running as high as 50 percent. The insect is occurring throughout the State in large numbers for the first time in many years. Late sweet corn is apparently coming to the market free from the borer, whereas early crops were hardly marketable because of a heavy infestation.

Minnesota. A. G. Ruggles (July 28): All over the State the corn ear worm is damaging the tassels of young corn before they appear. It is 6 weeks ahead of schedule.

South Dakota. H. C. Severin (July 16): The corn worm is much more abundant than usual in eastern part of the State. Worms are now attacking stems and rolled-up leaves of field corn, sweet corn, and pop corn.

Iowa. C. J. Drake (July 2): The corn ear worm is extremely abundant and is tunneling the stalks and destroying the buds and tassels. One farmer reported that from 10 to 90 percent of the stalks were infested, and from 25 to 40 percent are infested in a great many fields. Unless halted, the ear worm will do a great deal of damage to the ears this summer. It is also feeding on soybeans. The large ear worms are beginning to pupate.

Missouri. L. Haseman (July 23): First-generation ear worms worked in the tassels, but late generations will find a scarcity of food, owing to the drought. Some are found in green tomatoes.

Tennessee. G. M. Bentley (July 21): The corn ear worm is moderately abundant throughout the State, but notably scarcer than last year.

Mississippi. M. M. High (June 4): The tomato fruit worm was found destroying squash blooms and young fruit at Loudon.

Nebraska. M. H. Swenk (July 15): During the period from June 29 to July 11 the first-brood caterpillars were very abundant in the young corn over Nebraska, as far west as the 100th meridian, and especially in certain sections of this area. The caterpillars did their greatest damage by boring into and largely consuming the developing tassels of the corn, although in some fields they also bored through and badly damaged the unfolding leaves, as high as 30 to 40 percent of the corn stalks being thus attacked. The stems of tomato plants, the young tomato fruits in some cases, and bean pods were also attacked. The damage was much more extensive and intense this year than in 1931, when first-brood cater-

pillars did a great deal of damage to young corn in eastern Nebraska, from the Missouri River between Richardson and Cedar Counties west to Madison, Valley, and Buffalo Counties.

Kansas. H. R. Bryson (July 25): The corn ear worm was reported to be injuring tomatoes at Norton and has caused considerable injury to the curl and tassels in various localities.

California. H. J. Ryan (July 24): The corn ear worm has been much more abundant than usual in Los Angeles County.

SOUTHERN CORN STALK BORER (Diatraea crambidoides Grote)

Virginia. F. W. Poos (July 10): Considerable injury has been done to some early planted fields at Holland, prompting inquiry by a farmer as to the cause of damage.

A FLEA BEETLE (Systena taeniata blanda Melsh.)

Ohio. T. H. Parks (July 1): The pale-striped flea beetle (S. taeniata blanda) was very injurious to young corn in June. Damage was most severe in northern counties. It also attacked beets, tomatoes, cucumbers, and other garden crops.

Minnesota. A. G. Ruggles (July 28): This flea beetle was reported from Lewiston as infesting beans, corn, and Canada thistle.

A BILLBUG (Calendra maidis Chitt.)

Mississippi. J. M. Langston (July 23): A billbug collected in a cotton field at Columbus, Lowndes County, on July 11, was identified by A. F. Satterthwait. This is the first record of this species in Mississippi.

ALFALFA

ALFALFA WEEVIL (Hypera postica Gyll.)

Utah. C. J. Sorenson (July 27): Adults of the alfalfa weevil are moderately abundant in northern Utah and the larvae are scarce.

Nevada. G. G. Schweis (July 2): The weevil damage for the season is over, and in the State as a whole the damage was less severe than for some years past. But in a few localities it was very severe and the worm population was enormous. (July 20): Adults are numerous in fields where the first crop was cut late.

California. A. E. Michelbacher (July 22): In the Tracy region the alfalfa weevil is rather scarce. The highest average collection per 100 sweeps of a net was 38 larvae on July 16. About Pleasanton the highest counts were 130. In the Niles area larvae were most numerous, and the highest average count in any field was 238.

SUGARCANE

SUGARCANE BORER (Diatraea saacharalis Fab.)

Louisiana. W. E. Hinds (June 29): The sugarcane borer received a decided setback during the very severe Gulf hurricane which swept across most of the Louisiana cane belt on June 16. In much of this area wind velocities ranged from 50 to 70 miles per hour. A heavy rainfall occurred also. Corn, which was then nearly mature (where most of the borers were reaching maturity at the end of the first generation), was whipped to shreds and the loss in yield will be heavy. Most of the first-generation adults, which were then active and laying eggs, were killed by the storm and the eggs laid on the foliage of corn and cane were washed or whipped off and destroyed. Many of the very young borers then in the leaf rolls also seem to have perished. As a result, through the area most severely affected by the storm there is a rather serious injury to certain very tender varieties of cane, but a compensating destruction of borers may finally benefit the yield of cane as much as the storm damaged it directly.

VETCH

A BRUCHID (Bruchus brachialis Fahraeus)

Pennsylvania and North Carolina. C. C. Hill (July 30): An infestation is occurring in hairy vetch near Waynesboro, Franklin County, Pa. Specimens have been taken at Salisbury, Rowan County, and at Statesville, Iredell County, N.C.

F R U I T I N S E C T S

COTTON LEAF WORM (Alabama argillacea Hbn.)

Mississippi. R. W. Harned (July 26): There is an outbreak of cotton leaf worms at Agricola, in George County. This is the first report we have received this year from this State. (This is early enough for later broods of moths to damage fruit in the northern States. J.A.H.)

APPLE

CODLING MOTH (Carpocapsa pomonella L.)

New York. N. Y. State Coll. Agr. News Letter (July): During the first week in the month the codling moth became noticeably more abundant in the Hudson River Valley, and reports of rather severe damage were quite generally received from the western part of the State. By the middle of the month larvae were leaving the fruit in the Hudson River Valley. (Abstract J.A.H.)

Pennsylvania. H. N. Worthley (June 30): Mature larvae of first brood were found under bands in Adams County on June 20, just as emergence of overwintered brood moths ended. Evidences of attack, which were scarce during the early part of June, became plentiful during the latter part of the month.

Maryland. E. N. Cory (July 21): Second-brood moths began to emerge on July 2 at Hancock; egg deposition started on July 4; hatching on July 9; and the peak of emergence occurred on July 10.

Ohio. T. H. Parks (July 18): Larvae of the first brood were very numerous in unprotected fruits over the State. Forty percent of the apples on an unsprayed tree near Chillicothe were infested on June 20. Extra cover sprays have been applied in most orchards. The second generation of moths began emerging about 10 days earlier than last year.

Illinois. W. P. Flint (July 18): The codling moth, on the whole, is more abundant than last year. Development is nearly 2 weeks in advance of last year and it is probable that as severe an infestation will develop as in 1933.

Kentucky. W. A. Price (July 25): The codling moth is very abundant.

Minnesota. A. C. Hodson (June): Codling moths are scarce in southeastern counties; the mortality during the winter was high.

Missouri. L. Haseman (July 23): The peak of second-brood moth emergence occurred between June 23 and July 14, but eggs and worms have been relatively scarce.

Howard Baker (June 15): The dry weather which persisted in this region (Saint Joseph) through nearly the entire period of the first brood resulted in an infestation of unusual intensity, which will result in the loss of a high percentage of the crop, as the development of the insect

is so far in advance of normal.

Kansas. H. R. Bryson (July 25): At this date a few codling moths of the latter part of the second brood are emerging at Oxford. Damage is severe in some old blocks of trees in Doniphan County, where orchard sanitation was not practiced last winter. The apple crop in general is much cleaner than last year.

Nevada. Geo. G. Schweis (July 2): The codling moth is moderately abundant on unsprayed fruit in western Nevada.

Oregon. D. C. Mote and assistants (June 29): The infestation around Corvallis is perhaps a little lighter than normal but heavier than last year. First-brood moths are still emerging. The worms are beginning to come down into the bands and second-brood moths are expected in about 10 days. (July 24): The third cover spray is now being applied for second-generation codling moths in the Willamette Valley. Many pupae of the first generation still under the bands.

Washington. E. J. Newcomer (July 26): The codling moth is less abundant than last year on apple and pear in the Yakima Valley, and has been more easily controlled, owing to cooler weather.

APPLE APHID (Aphis pomi DeG.)

Massachusetts. A. I. Bourne (July 25): The green apple aphid began to appear in considerable abundance in many of the orchards near Amherst during the last 2 or 3 weeks, when there have been practically a total deficiency of rainfall and several periods of extremely high temperature. Up to the first of July twigs were beginning to recover from the winter injury. This infestation is affording quite an acute problem in these winter-injured orchard

Connecticut. P. Garman (July 23): A. pomi is causing injury to fruit in some orchards in New Haven and Hartford Counties, but is not especially abundant.

New York. N. Y. State Coll. Agr. News Letter (July): Green apple aphids are increasing in both the eastern and western apple districts and are becoming serious in some unsprayed orchards. (Abstract J.A.H.)

Montana. A. L. Strand (June 28): The green apple aphid is very injurious.

Oregon. D. C. Mote and assistants (June 29): The green apple aphid is more numerous at Corvallis than for many years.

APPLE MAGGOT (Rhagoletis pomonella Walsh)

Connecticut. P. Garman (July 23): Flies are emerging in abundance in New Haven County.

New York. N. Y. State Coll. Agr. News Letter (July): During the first week in the month adults were emerging in cages in Orange County and egg punctures were observed in the field in the Hudson River Valley. The peak of emergence occurred during the second week in the month. (Abstract J.A.H.)

EUROPEAN RED MITE (Paratetranychus pilosus C. & F.)

Connecticut. P. Garman. (July 23): More abundant in Hartford and New Haven Counties than at any time during the last 2 or 3 years.

PEACH

ORIENTAL FRUIT MOTH (Grapholitha molesta Busck)

Connecticut. P. Garman. (July 23): Twig injury fairly abundant in many orchards.

New York. N. Y. State Coll. Agr. News Letter (July): Generally abundant throughout the State; more serious than last year. (Abstract J.A.H.)

Delaware. L. A. Stearns (July 24): Parasitization of the first brood of the moth is 75 percent.

Pennsylvania. L. L. Guyton (July 23): Moderately abundant in Franklin, Adams, and York Counties.

Virginia. W. J. Schoene (July 25): In the early season a very heavy emergence of adults occurred, resulting in a very severe twig injury in all orchards. Reports now indicate that the population has decreased and that this is due to the work of the parasites.

Alabama. J. M. Robinson (July 21): Very abundant on peach twigs in Prattville.

Michigan. R. Hutson (July 23): The oriental fruit moth is moderately abundant.

Tennessee. G. M. Bentley (July 21): Moderately abundant throughout the State; some damage to apples and peaches.

PEACH BORER (Aegeria exitiosa Say)

Georgia. O. I. Snapp (July 19): Although the first adult of this season emerged at Fort Valley on June 18, the earliest emergence record for this latitude, very few have yet emerged.

PLUM CURCULIO (Conotrachelus nenuphar Hbst.)

Connecticut. P. Garman (July 23): Damage is very severe in orchards interplanted with peaches, but the curculio is well controlled in orchards not interplanted and using an adequate spray schedule.

Georgia. O. I. Snapp (July 9): Egg deposition by the second generation began at Fort Valley on July 9 by adults which emerged on June 18; therefore, the Elberta, which is the chief commercial variety of peach in Georgia, will be subjected to an attack by second-brood larvae. The infestation is now heavier than average. (July 20): Second-brood larvae are showing up in the Elberta peaches, which are just beginning to ripen. That is the last commercial variety of peach to ripen in Georgia.

Tennessee. G. M. Bentley (July 21): The plum curculio is moderately abundant throughout the State; decidedly less than last year.

Alabama. O. I. Snapp (July 11): The curculio infestation in Carman and Hiley peaches at Prattville is reported to be the heaviest since 1918.

Minnesota. A. C. Hodson (June): Moderately abundant in southeastern part of the State, particularly on plums; the greatest injury is to apples.

North Dakota. J. A. Munro (July 18): Moderately abundant on plum at Mandan, in Morton County.

PEAR

PEAR PSYLLA (Psyllia pyricola Foerst.)

Connecticut. P. Garman (July 23): Very abundant in New Haven County.

New York. N. Y. State Coll. Agr. News Letter (July): Large numbers of pear psylla eggs were laid during the early part of the month in the Hudson River Valley. First-instar larvae were observed on June 12 in Ulster County. By the middle of the month they were very numerous and were doing considerable damage. (Abstract J.A.H.)

CHERRY

CHERRY FRUIT FLY (Rhagoletis cingulata Loew)

Oregon. D. C. Mote and assistants (June 29): Apparently reached a peak of emergence in the earlier locations in the Willamette Valley about May 28, and in the later localities on June 5. On June 25 a few flies were still emerging in both the early and late localities. The first oviposition was observed in Bing cherries on June 8. First-instar larvae were found on June 11. Full-grown larvae and respiration holes in cherries were observed on June 21. (July 24): Maggots of all sizes observed on July 17. Last emergence of adults in cages observed July 13. Still plenty of flies in infested orchards.

PEAR SLUG (Eriocampoides limacina Ratz.)

Oregon. E. J. Newcomer (July 26): Defoliating cherry trees near La Grande.

BLACK CHERRY APHID (Myzus cerasi Fab.)

Montana. A. L. Strand (June 28): The cherry aphid has caused extensive injury in unsprayed cherry orchards in the Flathead district.

CHERRY LEAF BEETLE (Galerucella cavicollis Lec.)

West Virginia. S. M. Peairs (July 21): The most important outbreak of the cherry leaf beetle since 1915 occurred this year. It covered the northern half of the State and was also present farther south.

PLUM

OBLIQUE-BANDED LEAF ROLLER (Cacoecia rosaceana Harr.)

Oregon. D. C. Mote (July 24): At Milton and Freewater, larvae, pupae, and adults of the oblique-banded leaf roller are numerous on prunes; injury very severe. There is evidence of heavy parasitization of the larvae.

RASPBERRY

RASPBERRY CANE BORER (Oberea bimaculata Oliv.)

Maine. H. B. Peirson (July 10): The raspberry cane borer is very abundant in Augusta.

Vermont. H. L. Bailey (July): The raspberry cane borer is unusually abundant.

Wyoming. C. L. Corkins (July): The two-spotted Oberea has been taken on raspberries this summer for the first time in my experience in the State.

A WEEVIL (Brachyrhinus rugosostriatus Goeze.)

Oregon. D. C. Mote (June 29): A heavy infestation was reported in the raspberry patches in Linn County. The beetles are now present in great numbers.

RASPBERRY SAWFLY (Monophadnoides rubi Harr.)

Montana. A. L. Strand (June 28): The raspberry sawfly is more destructive than usual.

GRAPE

GRAPE LEAFHOPPER (Erythroneura comes Say)

New York. N. Y. State Coll. Agr. News Letter (July): Early in the month grape leafhoppers were appearing in large numbers and promising trouble later in the season. (Abstract J.A.H.)

P. J. Parrott (July 24): The grape leafhopper is from moderately abundant to very abundant.

Pennsylvania. J. O. Pepper (July 23): The grape leafhopper is abundant on grapes in central Pennsylvania.

Indiana. J. J. Davis (July 28): The grape leafhopper was reported as very abundant and destructive to grapes at Connersville and Clinton during the first half of July.

Minnesota. A. G. Ruggles (July 26): The grape leafhopper is doing much damage around St. Paul and Minneapolis.

Nebraska. M. H. Swenk (June 20 to July 15): Residents of Omaha and Lincoln found the grape leafhopper doing considerable damage to their ornamental

woodbine vines during the first and second weeks in July.

Kansas. H. R. Bryson (July 25): Grape leafhoppers have been causing considerable injury to grapes in Doniphan County and in a number of other localities.

A LEAFHOPPER (Cicadella circellata Bak.)

California. H. J. Ryan (July 24): A heavy infestation of the blue sharpshooter (C. circellata) was reported on grapes at Rosemead.

ENGLISH WALNUT

WALNUT APHID (Chromaphis juglandicola Kalt.)

California. H. J. Ryan (July 24): The walnut aphid was found in June in sufficient numbers to warrant control measures on English walnuts in Los Angeles County.

PECAN

AN APHID (Melanocallis caryaefoliae Davis)

Georgia. T. L. Bissell (July 21): Of 200 leaflets collected at Experiment, 61 percent were injured, 7 percent of the leaf surface being injured. At Milner about 20 percent of the leaf surface was injured, but there was no defoliation. Few live aphids at either place.

OBSCURE SCALE (Chrysomphalus obscurus Comst.)

California. California St. Dept. Agr. (June 30): A new infestation was found in June on pecans at Flynn Springs, San Diego County, and small infestations at Rancho Santa Fe in a few back-yard plantings, all traceable to the former infestation. The infestation covers several acres and is heavy. It has spread to adjoining live oak trees. The State is making a complete survey, with eradication as the objective. It is believed that the scale was brought into California on pecan trees in 1919.

A SAWFLY (Periclista hicoriae Rohw.)

Mississippi. M. M. High (June 10): This pest was first observed along the Mississippi coast in April 1931, where it was attacking pecan, but the injury to pecan leaves this year is more widely distributed than before. Every orchard observed had leaves riddled with holes by the larvae.

CITRUS

GREEN CITRUS APHID (Aphis spiraecola Patch)

Florida. J. R. Watson (July 23): More abundant in Alachua County than ever before in July; scarce in Lake and Polk Counties.

Louisiana. H. L. Dozier (July 19): A. spiraecola is abundant, curling growing shoots of citrus in widely separated localities.

Puerto Rico. G. N. Wolcott (June 29): Small infestations of the green aphid of citrus have been noted for a year or more, but this spring serious infestations have been more common and appear to be increasing in intensity and extent.

ORANGE TORTRIX (Tortrix citrana Fern.)

California. H. J. Quayle (July 5): There is a heavy infestation at Corona, Riverside County. For the past 2 or 3 weeks small worms have been making slight scars under and in the vicinity of the button. Mr. McGregor is of the opinion that this work is chiefly that of Platynota stultana Walsm., but Mr. Basinger thinks that the infestations consist chiefly of the tortrix. If such infestation continues at Corona and the worms bore into the fruit, it will become a matter of considerable importance, even in that territory. I am not anticipating, however, that there is going to be very much boring into the fruit; if it does occur it will be the first time to my knowledge that there has been any such work to any serious degree as far from the coast as Corona. We have these heavy infestations every 5 to 7 years, more or less. The damage will range from a few percent to about 25 to 30 percent of the crop.

AVOCADO

A SCARABAEID (Serica fimbriata Lec.)

California. H. J. Ryan (July 24): Adults attacking a grove of young avocados in the southern part of Los Angeles County caused enough injury to justify control measures.

TRUCK-CROP INSECTS

BLISTER BEETLES (Meloidae)

Connecticut. M. P. Zappe (July 23): Blister beetles (Epicauta cinerea marginata Fab.) are very abundant and are causing considerable injury in New Haven County to beets, eggplant, and other vegetables.

Kentucky. W. A. Price (July 25): Three species of blister beetles, the ash gray (Macrobasis unicolor Kby.), the immaculate (M. immaculata Say), and the striped (E. vittata Fab.), are common throughout the State, feeding on truck crops.

Mississippi. J. M. Langston (July 23): A grower at Grenada, Grenada County, sent specimens of E. lemniscata Fab. to this office on July 2, with a report that they were causing considerable injury to tomatoes.

M. M. High (June 25): The three-lined blister beetle (E. lemniscata) was observed injuring potato and beets at Guntown and Tupelo.

South Dakota. H. C. Severin (July 16): Blister beetles have been severely damaging alfalfa, sweetclover, potato, caragana hedges, beans, beets, and ash and cottonwood trees. The species concerned numbered about a dozen.

WESTERN SPOTTED CURCUMBER BEETLE (Diabrotica soror Lec.)

Oregon. D. C. Mote and assistants (June 29): The western 12-spotted cucumber beetle is much more numerous near Corvallis than it was last year.

California. E. O. Essig (July 19): Adults were abundant and destructive to ornamental and garden plants in San Francisco Bay district in June.

H. J. Ryan (July 24): Considerable damage to beans in the southern part of Los Angeles County was caused by the western 12-spotted cucumber beetle and the western striped cucumber beetle (D. trivittata Mann.).

GRAPE COLASPIS (Colaspis brunnea Fab.)

New York. C. R. Crosby (July 5): The grape colaspis is causing quite a bit of damage to string beans at Mount Morris; also found in field beans at Burdett.

Alabama. J. M. Robinson (July 21): The grape colaspis is very abundant on cotton squares at Huntsville and Troy.

Tennessee. G. M. Bentley (July 21): The grape colaspis was damaging cotton bolls at Ripley on July 11; grape at Brighton on July 11; and grape and sweetpotato at Knoxville on July 13 and 17.

Mississippi. J. M. Langston (July 23): Specimens were received from Sunflower County on July 6, with a report that they were injuring cotton and cornsilks. Correspondents in Yazoo County recently sent in specimens, stating that cotton was being injured by them.

FALSE CHINCH BUG (Nysius ericae Schill.)

Maryland. E. N. Cory (July 23): False chinch bugs are attacking dahlias in Allegany County.

Indiana. J. J. Davis (July 28): The false chinch bug was reported as abundant in cornfields in several localities but no injury was observed. At Winamac it was reported injuring potatoes on July 5.

Michigan. R. Hutson (July 16): The false chinch bug is very prevalent on raspberries all over the lower part of the Lower Peninsula. It has also injured potatoes and alfalfa.

Minnesota. A. G. Ruggles (July 28): The false chinch bug has been reported from Brainerd, Crow Wing County.

South Dakota. H. C. Severin (July 16): The false chinch bug is very abundant and is attacking all garden truck, raspberries, and blackberries in the Black Hills district.

Nebraska. M. H. Swenk (June 20 to July 15): The false chinch bug was reported as damaging garden truck, especially radishes, turnips, and, to a lesser extent, potatoes, in western Nebraska from Redwillow to Cherry Counties.

Utah. G. F. Knowlton (July 17): False chinch bugs are extremely abundant. Reports of damage to truck and garden crops have been received from a number of localities.

Nevada. G. G. Schweis (July 20): False chinch bugs have been giving some trouble by invading residences in the vicinity of Reno.

POTATO AND TOMATO

COLORADO POTATO BEETLE (Leptinotarsa decemlineata Say)

Minnesota. A. G. Ruggles (July 28): The Colorado potato beetle is moderately abundant.

North Dakota. J. A. Munro (July 18): The Colorado potato beetle is very abundant at Fargo.

South Dakota. H. C. Severin (July 16): For several years the Colorado potato beetle has been negligible, but is now becoming more abundant and is numerous enough to cause damage.

Nebraska. M. H. Swenk (July 15): Complaints of damage to potatoes continued to be received up to the middle of July.

Wyoming. C. L. Corkins (July 26): Colorado potato beetle very abundant; worst in years.

POTATO FLEA BEETLE (Epitrix cucumeris Harr.)

Connecticut. N. Turner (June 21): The potato flea beetle is more abundant than last month and is causing much damage to late potatoes in the Connecticut Valley.

New York. N. Y. State Coll. Agr. News Letter (July): The potato flea beetle is reported as generally abundant throughout the State, but on the whole not so abundant as in years of outbreaks.

Utah. G. F. Knowlton (July 7): Flea beetles are damaging potatoes at Riverton.

TOMATO PIN WORM (Gnorimoschema lycopersicella Busck)

Mississippi. M. M. High (June): This new tomato pest was found at Gulfport in greenhouses on May 7. When first found the larvae had done serious injury to tomatoes of transplantable size by practically defoliating about 90 percent of the plants. Later it was found in fields nearby where serious injury was done to fruit, leaves, and branches of tomato plants. This is the first record of this species in Mississippi. The grower reports a loss of two-thirds of his hothouse-grown tomatoes last winter from this pest. The field-grown tomatoes ripening in June were practically a total loss.

POTATO TUBER WORM (Gnorimoschema operculella Zell.)

Utah. G. F. Knowlton (July 17): Larvae are mining the leaves and stems of volunteer potatoes at Enterprise.

POTATO LEAFHOPPER (Empoasca fabae Harr.)

Massachusetts. A. I. Bourne (July 25): The potato leafhopper is very abundant except in the well-sprayed fields.

New York. N. Y. State Coll. Agr. News Letter (July): Potato leafhoppers were scarce in the western part of the State, but in the eastern part they were more numerous and considerable hopperburn was observed. (Abstract J.A.H.)

Ohio. N. F. Howard (July): The potato leafhopper is less abundant in central Ohio than at any time during the past 10 years. This is interesting in view of the rather light infestation in Florida late in 1933 and early in 1934, and tends to corroborate the migration theory.

Tennessee. G. M. Bentley (July 21): The potato leafhopper is unusually abundant on the Cumberland Plateau. A 30-percent loss in yield was suffered by those who did not spray.

South Dakota. H. C. Severin (July 16): The damage from the potato leafhopper has been severe during an extremely dry period.

POTATO APHID (Illinoia solanifolii Ashm.)

Massachusetts. A. I. Bourne (July 25): Potato aphids moderate to very abundant in the Connecticut Valley, especially in the last 3 weeks.

Connecticut. N. Turner (July 23): More abundant than usual in the Connecticut Valley, but thus far natural enemies are preventing an outbreak.

New York. N. Y. State Coll. Agr. News Letter (July): Potato aphids are very numerous on Long Island and in the southern counties of the Hudson River Valley. (Abstract J.A.H.)

SOUTHERN GREEN STINK BUG (Nezara viridula L.)

Mississippi. M. M. High (July 1): The southern green plant bug has caused serious damage to tomatoes along the Mississippi coast and injury was observed as far north as Lee County. It was also observed attacking peppers and potatoes.

TARNISHED PLANT BUG (Lygus pratensis L.)

Maine. H. B. Peirson (July 7): Tarnished plant bug observed at Augusta. Very common and stinging potato buds.

Maryland. E. N. Cory (July 23): Tarnished plant bugs attacking potatoes on the Eastern Shore and canning beans at Westminster. The dusky plant bug (Adelphocorus rapidus Say) is also attacking canning beans at Westminster, and both pests have caused extensive damage to canning beans in Carroll County.

Indiana. J. J. Davis (July 28): The tarnished plant bug was observed damagin potatoes in northern Indiana by G. E. Gould.

TOMATO PSYLLID (Paratrioza cockerelli Sulc.)

Wyoming. C. L. Corkins (July 26): Very serious outbeak of psyllid yellows on potatoes, extending from Lander through the Big Horn Basin to Powell. Extensive control measures are now under way.

A JERUSALEM CRICKET (Stenopelmatus longispina Brun.)

California. H. J. Ryan (July 24): A Jerusalem cricket, S. longispina, was unusually abundant on potatoes planted in fallow ground near Huntington Park, in Los Angeles County.

BEANS

MEXICAN BEAN BEETLE (Epilachna corrupta Muls.)

New Hampshire. L. C. Glover (July 24): The Mexican bean beetle is moderately abundant.

Vermont. H. L. Bailey (July 27): The Mexican bean beetle is very abundant in Windham and Bennington Counties.

Massachusetts. A. I. Bourne (July 25): The Mexican bean beetle very abundant locally. In many cases, it has been practically absent, even from large plantings, but, on the other hand, home gardens and commercial plantings have suffered severely. The beetles apparently emerged in numbers rather later than usual.

Connecticut. W. E. Britton (July 24): The Mexican bean beetle is moderately abundant.

New York. N. Y. State Coll. Agr. News Letter (July): Early in the month beetles were hatching in large numbers on Long Island. They were also about as numerous as last year in the western part of the State. (Abstract J.A.H.)

New Jersey. T. J. Headlee (July 24): The Mexican bean beetle is moderately abundant.

Pennsylvania. L. L. Guyton (July 23): Moderately abundant throughout the southeastern part of the State.

Ohio. T. H. Parks (July): Injury has been greater than usual and rather evenly distributed over the State. Serious injury, even in northeastern counties during June.

Indiana. J. J. Davis (July 28): The Mexican bean beetle has been reported as abundant and destructive in many localities in the southern half of the State. The potato beetle killer (Perillus bioculatus Fab.) has been reported frequently as attacking the larvae.

Nebraska. M. H. Swenk (July 15): On June 23 the Mexican bean beetle was reported doing damage to garden beans around Oshkosh, Garden County, this being the first record of its occurrence in that county.

PEAS

PEA APHID (Illinoia pisi Kalt.)

New York. N. Y. State Coll. Agr. News Letter (July): The pea aphid was very abundant throughout the State. In some areas as high as 95 percent of the late peas were plowed under. In the lake region this insect is more serious than it has been in any past year. (Abstract J.A.H.)

Idaho. C. Wakeland (July 24): There is a rather serious outbreak in the pea fields of northern Idaho. It is especially severe on the late varieties, and yields are being definitely reduced. This unusual infestation is doubtless due to the preceding mild fall and winter, which allowed volunteer peas to live in the field throughout the winter and early spring, and aphids probably reproduced on them during the period when they are usually dormant in this area. Parasites have been of minor importance in control and have not bred up as they have done frequently in former years when the aphid has been abundant.

CABBAGE

HARLEQUIN BUG (Murgantia histrionica Hahn)

Virginia. H. G. Walker (July 26): The harlequin bug is only moderately abundant at Norfolk. We have had very few requests for information, as compared with last year.

Florida. F. S. Chamberlin (June 20 to July 15): The harlequin cabbage bug is very abundant at this time in Gadsden County, attacking cabbage and collards.

Ohio. N. F. Howard (July): The harlequin bug is present in southern Ohio but is not very injurious. A number apparently survived the rather severe winter.

B. J. Landis (July 23): An adult was taken from broccoli at the State University. This is the first record this year for Columbus.

Indiana. J. J. Davis (July 28): The harlequin bug was reported as destructive to cabbage and cauliflower from July 2 to 12 in the southern part of the State.

Tennessee. G. M. Bentley (July 21): The harlequin bug is very abundant throughout the State, except in 8 counties in the extreme western part.

CABBAGE APHID (Brevicoryne brassicae L.)

Ohio. T. H. Parks (July 10): The cabbage aphid has caused serious injury to some commercial cabbage plantings. Damage is most serious on cabbage grown from plants produced in the South.

Indiana. J. J. Davis (July 28): The cabbage aphid was reported as heavily infesting cabbage at Howe and Indianapolis the last of June.

Nebraska. M. H. Swenk (July 15): Cabbages were reported as being heavily attacked in Sherman County during the first week in July.

Montana. A. L. Strand (June 28): The cabbage aphid is abundant.

Utah. G. F. Knowlton (June 9): Cabbage aphids are damaging cabbage plants at Cedar City and at Beryl.

SQUASH

SQUASH BUG (Anasa tristis DeG.)

Ohio. N. F. Howard (July 18): Squash bug eggs are extremely numerous on early squash and are hatching on this date at Columbus. Some vines have been wilted by nymphs.

Indiana. J. J. Davis (July 28): The squash bug was reported as abundant at Andrews, Howe, and Berne the last of June. At the latter place it was injuring pumpkin.

South Dakota. H. C. Severin (July 16): The squash bug is destructive to squash, melons, and cucumbers at Parker.

Nebraska. M. H. Swenk (June 20 to July 15): The squash bug was exceedingly injurious to squashes and pumpkins and less so to cucumbers and melons over a large section of the State from June 29 to July 5, the most complaints coming from northern Nebraska, from Knox County west to Cherry and Sheridan Counties.

Kansas. H. R. Bryson (July 25): Squash bugs are abundant at Wichita, Manhattan, and Oxford.

Utah. G. F. Knowlton (July 9): Squash bugs are abundant at Cedar City, discouraging the growing of squash there, and have killed most of the squash plants on some farms at Providence.

Oregon. D. C. Mote and assistants (June 29): The squash bug is present in serious numbers in some plantings near Corvallis.

CELERY

CARROT WEEVIL (Listronotus latiusculus Boh.)

Michigan. R. Hutson (July 16): The celery stalk borer has been causing considerable damage to celery in the vicinity of Portage and Kalamazoo. Survey indicates that this pest is common throughout the celery-growing region around Kalamazoo; that the injury occurs all over the field; and that this pest is capable of doing serious injury to celery.

EGGPLANT

A TORTOISE BEETLE (Gratiana pallidula Boh.)

Mississippi. M. M. High (July): The eggplant tortoise beetle did considerable

injury to eggplant about Gulfport and Long Beach. From 2 to 7 to the plant were found and many plants had leaves riddled with holes.

MINT

MINT FLEA BEETLE (Longitarsus waterhousei Kutsch.)

Indiana. J. J. Davis (July 28): The mint flea beetle is damaging many mint fields in northern Indiana, where control has not been practiced.

Michigan. R. Hutson (July 17): The mint flea beetle is causing considerable damage to mint in the vicinities of Baroda, Niles, Dowagiac, and Saint Johns.

STRAWBERRY ROOT WEEVIL (Brachyrhinus ovatus L.)

Michigan. R. Hutson (July 16): B. ovatus has been causing considerable damage to mint at Ovid. One field of 3 acres was totally ruined and several other fields are infested.

STRAWBERRY

STRAWBERRY CROWN MOTH (Aegeria rutilans Hy. Edw.)

Oregon. D. C. Mote and assistants (June 29): The peak of emergence was reached in the last week of June. The moths began to appear the first week of June.

BEETS

BEET LEAFHOPPER (Eutettix tenellus Bak.)

Utah. G. F. Knowlton (June 27): Beet leafhoppers are present in damaging numbers in most parts of Utah, with sugar beets and tomatoes being seriously affected in most areas in which they are grown. Curly-top damage is least severe in Cache Valley. Sugar beets have been plowed up in some fields in more seriously infested areas. (July 20): Leafhoppers and curly-top are becoming increasingly destructive to the sugar beet crop. More beets are being abandoned as the season progresses.

C. J. Sorenson (July 27): The beet leafhopper is very abundant in Utah, Salt Lake, Davis, Boxelder, and Weber Counties.

SPINACH LEAF MINER (Pegomyia hyoscyami Panz.)

Montana. A. L. Strand (June 28): The beet leaf miner has caused commercial damage to beets, Swiss chard, and spinach this year for the first time.

FOREST AND SHADE-TREE INSECTS

BAGWORM (Thyridopteryx ephemeraeformis Haw.)

Maryland. E. N. Cory (July 21): Many reports of attack on evergreens coming in from all parts of the State.

Virginia. H. G. Walker (July 26): Bagworms are rather abundant at Norfolk.

North Carolina. R. W. Leiby (July 5): The bagworm is more abundant on arborvitae shrubs than usual. It is generally widespread in the State.

South Carolina. F. Sherman (July 26): The evergreen bagworm is more numerous than usual throughout the State.

Georgia. T. L. Bissell (July 23): One report received from Cedartown on July 17 and two from Griffin on July 21 and 23, of injury on spruce, arborvitae, and cedars.

Ohio. E. W. Mendenhall (June 29): Young bagworms are very numerous on elm trees now and are feeding on the leaves at Columbus. (July 17): It is very injurious on the arborvitae and on many of the deciduous trees in Springfield.

Indiana. J. J. Davis (July 28): Bagworms are reported as being destructive to arborvitae at Anderson and Lafayette on July 18.

Alabama. J. M. Robinson (July 21): The bagworm is very abundant on arborvitae at Fort Payne and Hackleburg.

Texas. E. W. Laake (July 24): Bagworms are very abundant in Dallas and vicinity.

FOREST TENT CATERPILLAR (Malacosoma disstria Hbn.)

Maine. H. E. Peirson (June 26): Very heavy stripping over an area of about 75 acres in Newcastle. Many birch, oak, and poplar are 100 percent defoliated. Heavy outbreaks also at Harpswell, from Enfield to Springfield, at Waltham, and 8 miles north of Millinocket, besides those areas mentioned in previous reports. Six to eight females were seen flying on the plateau of Mt. Katahdin during the heat of the day on July 9, which seems unusual, as poplar drops out on the lower slopes.

J. V. Schaffner, Jr. (July 20): We have reports that many acres of hardwoods between Bangor and Millinocket have been defoliated.

New Hampshire. L. C. Glover (July 14): An infestation of 250 acres has been reported in the town of Eaton, where the defoliation was nearly 100 percent. There was also severe feeding in several places at Conway and Hancock.

SATIN MOTH (Stilpnotia salicis L.)

New England. J. V. Schaffner, Jr. (July 20): Reports received show that infestations are generally light. In Harpswell, Maine, a few willow trees were completely defoliated and at South Boston, Mass., some poplar trees were nearly defoliated.

Connecticut. W. E. Britton (July 23): A full-grown larva was received from West Hartford on June 27, and two adults from West Haven on July 9. They were attacking poplar.

Washington. D. J. Caffrey (July 5): During the period June 12-14, severe defoliation of Lombardy poplars and cottonwood were observed at Sumner, Puyallup, and Tacoma.

FALL WEBWORM (Hyphantria cunea Drury)

Maryland. E. N. Cory (July 21): The fall webworm is attacking a wide variety of trees generally.

Georgia. O. I. Snapp (July 1): The fall webworm infestation south of Thomaston is the heaviest I have ever seen. On July 1 many small trees in woodlands were completely defoliated for miles.

T. L. Bissell (July 9): Few nests observed on pecan at Experiment and Milner.

SUMACH BEETLE (Blepharida rhois Forst.)

Florida. J. R. Watson (July 23): The sumach beetle has been damaging Brazilian peppers (Schinus terebinthifolius).

ASH

A BARK BEETLE (Leperisinus aculeatus Say)

Nebraska. M. H. Swenk (July 17): A correspondent from Saline County reported that his ash trees were being killed by the ash tree bark-beetle (Hylesinus aculeatus) during the first week in July.

A GALL MITE (Eriophyes fraxiniflora Felt)

Nebraska. M. H. Swenk (June 20 to July 15): Reports of severe infestations on ash trees were received from Antelope and Sarpy Counties on June 26 and July 2, respectively.

BIRCH

BRONZE BIRCH BORER (Agrilus anxius Gory)

New York. E. P. Felt (July 24): The bronze birch borer is somewhat prevalent in the Westbury, L.I., area, killing birches here and there.

Ohio. E. W. Mendenhall (July 2): The bronze birch borer is very injurious on the birch trees in Springfield and nearby.

Wisconsin. E. L. Chambers (July 30): The bronze birch borer is being reported as doing serious injury throughout the northern part of the State, being abundant in the plantings around parks and summer resorts, as well as in the heavier wooded areas.

CYPRESS

A GELECHIID (Recurvaria apicitripunctella Clem.)

Pennsylvania. E. P. Felt (July 24): A bald cypress leaf feeder R. apicitripunctella was reported as abundant and injurious to this tree in the Philadelphia area.

ELM

ELM LEAF BEETLE (Galerucella xanthomelaena Schr.)

New England. J. V. Schaffner (July 20): There has been a marked decline in the intensity of infestation generally throughout New Hampshire, eastern Massachusetts, and northern Rhode Island.

Connecticut. W. E. Britton (July 23): Probably less destructive than last year but has defoliated unsprayed trees in some localities.

New York. E. P. Felt (July 24): The elm leaf beetle has been locally abundant and very destructive; trees often completely defoliated in southern New York.

N.Y. State Coll. Agr. News Letter (July 9): Larvae have defoliated several large elms in Milton. They are now pupating.

Ohio. E. W. Mendenhall (July 2): Very injurious in Springfield and West Jefferson and seems to be spreading over the State.

B. J. Landis (July 23): The elm leaf beetle is injurious on some trees at Oxford and Piqua.

Kentucky. W. A. Price (July 25): Much damage to elms in the bluegrass area.

A SCOLYTID (Hylurgopinus rufipes Eich.)

Michigan. E. I. McDaniel (July 11): On June 25 several large elms 40 or 50 years old, growing on the streets of Lansing, were removed under suspicion of being infected with Dutch elm disease. A bark beetle was found to be present in great numbers and in some instances the entire trunk of the tree was engraved from the base to the crown for some 10 or 12 feet. Specimens were sent to M. W. Blackman for determination and he reports that they are H. rufipes. The death of the trees has taken place only

on streets paved during the last 3 or 4 years. This, together with continued dry weather, has undoubtedly weakened the trees and made them susceptible to attack by bark beetles.

EUROPEAN ELM SCALE (Gossyparia spuria Mod.)

Maryland. E. N. Cory (July 23): General infestation over the State on elms.

Ohio. N. F. Howard (July): European elm scale, presumably G. spuria, is abundant and injurious to elms in Columbus and abundant in some woodlots near the city.

Indiana. J. J. Davis (July 28): The European elm scale was reported as being abundant and destructive to elms in Allen County during the latter part of June.

Wisconsin. E. L. Chambers (July 30): The European elm scale is being reported by our nursery inspectors in several sections of the State heretofore uninfested, and it is apparently appearing in greater numbers.

Idaho. C. Wakeland (July 9): European elm scale has become established and is causing serious injury to American elms in the vicinity of Moscow. This is the first year that it has been reported from this locality.

LOCUST

LOCUST LEAF MINER (Chalepus dorsalis Thunb.)

Virginia. F. C. Meier (July 16): The locust leaf miner was abundant throughout the area between Roanoke and Charlottesville, locust trees on both sides of the mountains being attacked. Serious leaf injury is being caused. The affected foliage serves to conspicuously mark the distribution of locust throughout the area. (Det. by S. A. Rohwer)

MAPLE

GREEN FRUIT WORM (Graptolitha antennata Walk.)

Vermont. H. L. Bailey (July 27): The green maple worm and another species, possibly Septis grotei B. & McD., are very abundant on soft maple and ash, and to some extent on oak in Milton near the mouth of the Lamoille River. Defoliation in swamp lands is nearly complete.

NORWAY MAPLE APHID (Periphyllus lyropictus Kess.)

Kentucky. W. A. Price (July 25): Specimens received on maple foliage from Berea, Shelbyville, Carlisle, and Lexington.

WOOLLY ALDER APHID (Prociphilus tessellatus Fitch)

New Hampshire. L. C. Glover (July 14): Reported several times from various parts of the State and is abundant on cutleaf maple in Antrim and Manchester.

Massachusetts. A. I. Bourne (July 25): We have had several complaints of unusual abundance of a species of aphids on maple. (Det. by E. Patch)

Connecticut. W. E. Britton (July 23): More common than usual on silver maple.

E. P. Felt (July 24): The alder blight aphid was reported as very abundant and curling the leaves of a soft maple in the Danbury area.

New York. C. R. Crosby (July 3): Cutleaf maple leaves badly infested were received from Schenectady.

R. E. Horsey (July): Considerable infestation found on branches of an alder at Rochester. Not as common now as in some years.

Maryland. E. N. Cory (July 21): General on soft maples.

Ohio. T. H. Parks (July 3): Infesting soft maple trees in parts of Ohio. I have received it from three counties. This is the first year it has been brought to my attention. I suppose it is the woolly maple leaf aphid (Pemphigus acerifolii Riley).

MOUNTAIN-ASH

A SAWFLY (Pristiphora banksi Marl.)

Maine. H. B. Peirson (June 30): The mountain-ash sawfly hatched at Boothbay on June 24. Young larvae are numerous. On Monhegan Island all mountain-ash trees are being stripped.

OAK

OAK TWIG PRUNER (Hypermallus villosus Fab.)

Maine. H. B. Peirson (July): Reports of infestation are general and common over central and southern Maine.

New Hampshire. L. C. Glover (July 24): The oak twig borer has been reported several times as doing damage to oak.

Massachusetts. A. I. Bourne (July 25): It is very generally abundant and its work has been made rather more conspicuous during the last 2 or 3 weeks, as we have had practically no rainfall and very light wind and many of the severed twigs have failed to drop to the ground. The larvae have nevertheless died and the foliage has turned color.

Connecticut. W. E. Britton (July 23): Unusually abundant this season. Many inquiries received regarding it.

Indiana. J. J. Davis (July 28): According to reports from June 21 to July 6, the twig pruner was very abundant in several localities in northeastern Indiana where it was cutting oak twigs.

Michigan. R. Hutson (July 16): The oak twig pruner is very evident all over the Lower Peninsula.

Wisconsin. E. L. Chambers (July 30): Many specimens of the oak twig pruner are being sent from the southeastern corner of the State to this office for identification.

Minnesota. A. G. Ruggles (July 28): Doing considerable damage to apple at White Bear, Ramsey County.

TWO-LINED CHESTNUT BORER (Agrilus bilineatus Web.)

Connecticut, New York, and Rhode Island. E. P. Felt (July 24): The two-lined chestnut borer is becoming increasingly abundant in the oaks in Rhode Island, especially about Newport, and also in southern Connecticut and southern New York, especially on the North Shore of Long Island. The indications are that many trees will succumb to this dangerous pest in the next few years.

CALIFORNIA OAK WORM (Phryganidia californica Pack.)

California. H. J. Ryan (July 24): The California oak moth is still causing concern to owners of oak trees in Los Angeles County. Adult moths were reported in large numbers, particularly in the western part of the county. This may mean a heavy fall infestation.

A SCALE INSECT (Chionaspis quercus Comst.)

Florida. E. W. Berger and G. B. Merrill (July 24): The oak chionaspis is very abundant at Carrabelle. The infestation is severe on one or several trees.

PINE

A SCARABAEID (Pachystethus lucicola Fab.)

Michigan. E. I. McDaniel (June 29): Recently we have received specimens of Anomola lucicola feeding on Austrian pine at Free Soil. From time to time we have had more or less trouble with this species in the grape belt, where in some years it caused quite a little damage. This is the first record we have had of its feeding on conifers.

WHITE PINE WEEVIL (Pissodes strobi Peck)

Maine. J. V. Schaffner (July 20): In driving through parts of Cumberland and York Counties on July 16, I noticed that many terminals of white pine were drooping and drying up because of infestation.

A PINE WEEVIL (Pissodes approximatus Hopk.)

Connecticut. E. P. Felt (July 24): A white pine weevil, provisionally identified as P. approximatus, has killed a number of small pines at

North Stamford, the work being confined to the very base of the trunk and mostly a little below the surface of the ground.

ABBOT'S SAWFLY (Diprion abbotii Leach)

Minnesota. A. G. Ruggles (July 28): Reported on white pine at Scandia.

PINE NEEDLE SCALE (Chionaspis pinifoliae Fitch)

Minnesota. A. G. Ruggles (July 28): Reported from Deerwood as quite abundant on spruce.

South Dakota. H. C. Severin (July 16): The pine needle scale is moderately abundant in the Black Hills on Bull pine.

POPLAR

POPLAR BORER (Saperda calcarata Say)

North Dakota. J. A. Munro (July 18): The poplar borer is causing serious injury to poplar trees at Williston and Pekin.

SPRUCE

A EUCOSMID (Enarmonia ratzeburgiana Sax.)

Maine. H. B. Peirson (July 1): Considerable injury to tips of white spruce at Bar Harbor. Moths emerging in large numbers.

SPRUCE GALL APHID (Chermes abietis L.)

Maine. H. B. Peirson (July 12): There is considerable injury from this insect in Newagen. On Monhegan Island, where there have been outbreaks in the past, none could be found this year, on July 19 after thorough searching.

SPRUCE MITE (Paratetranychus uninguis Jac.)

Connecticut. W. E. Britton (July 23): This mite is apparently becoming more abundant. Specimens received on arborvitae from Bloomfield, Chester, Meriden, Windsor, and Wethersfield; on hemlock from Middle Haddam; on spruce from Hartford, Bridgeport, Ridgefield, and Woodbridge.

South Dakota. H. C. Severin (July 16): During the dry period of May and early June the spruce mite became exceedingly abundant on spruce and did an immense amount of damage.

INSECTS AFFECTING GREENHOUSE AND ORNAMENTAL PLANTS

STRIPED FLEA BEETLE (Phyllotreta vittata Fab.)

Maryland. P. Knight (July): The heads of sweet alyssum are being completely eaten. When the alyssum is sprayed the beetles begin to attack the nasturtiums, eating holes in the leaves. The leaves of the alyssum are also peppered with small holes. We have no records of this in previous seasons.

ARBORVITAE

A SOFT SCALE (Lecanium fletcheri Ckll.)

Connecticut. W. E. Britton (July 23): Specimens received from Chester, Madison, Pomfret Centre, and Southport.

Indiana. J. J. Davis (July 28): A lecanium scale, probably L. fletcheri, was abundant on arborvitae at Pendleton.

BARBERRY

A PYRALID (Omphalocera dentosa Grote)

Maryland. E. N. Cory (July 23): Attacking barberry in Washington County.

COLUMBINE

COLUMBINE BORER (Papaipema purpurfascia G. & R.)

Maine. H. B. Peirson (July 14): Caterpillars are numerous on columbine plants at Rumford.

New Hampshire. L. C. Glover (July 24): Injury has been reported from various parts of the State.

CRAPEMYRTLE

CRAPEMYRTLE APHID (Myzocallis kahawaluokalani Kirk.)

Louisiana. H. L. Dozier (July 19): The crapemyrtle plant louse is becoming abundant on crapemyrtle in New Orleans.

DAHLIA

A TORTRICID (Sparganothis flavedana Clem.)

Louisiana. H. L. Dozier (July 17): At present and during the greater part of June a small species of tortricid has been attacking the young growing shoots and buds of dahlias, webbing together and eating in such a manner as to destroy the bud and tip. Although not a serious matter, it is extremely annoying. This insect was present last season in widely scattered

fields, particularly during the month of June.

GLADIOLUS

GLADIOLUS THRIPS (Taeniothrips gladioli M. & S.)

Maryland. E. N. Cory (July 23): Doing considerable injury wherever gladioli are grown.

Wisconsin. E. L. Chambers (July 30): The gladiolus thrips is not so abundant this year as last, probably owing to the fact that most of the growers are now treating their bulbs during winter storage and are following satisfactory control programs during the growing season.

North Dakota. J. A. Munro (July 18): Gladiolus thrips are moderately abundant at Fargo and Grand Forks.

Utah. G. F. Knowlton (June 27): Thrips are seriously damaging gladioli at Logan and Provo.

California. E. O. Essig (July 19): Gladiolus thrips are widely distributed in San Francisco Bay district, but are only nominally destructive so far.

H. H. Keifer (July 21): This is the first year that the gladiolus thrips has appeared in Sacramento.

HYDRANGEA

FOUR-LINED PLANT BUG (Poecilocapsus lineatus Fab.)

Maine. H. B. Peirson (July 23): The four-lined plant bug is abundant in Augusta.

IRIS

IRIS BORER (Macronoctua onusta Grote)

New Hampshire. L. C. Glover (July 24): This borer is reported as causing injury to cultivated iris in the University gardens at Durham.

Maryland. E. N. Cory (July 23): More numerous in College Park than for several years.

LILAC

LILAC LEAF MINER (Gracilaria syringella Fab.)

Michigan. E. I. McDaniel (July 17): Today I received specimens of the lilac leaf miner from Petoskey, where it is said to be doing considerable damage to a lilac plantation. This insect has not been troublesome in Michigan in the past.

LILY

BULB MITE (Rhizoglyphus hyacinthi Bdv.)

Nebraska. M. H. Swenk (June 20 to July 15): A grower of Madonna lily bulbs in Clay County finds that the bulb mite has practically destroyed her crop.

RHODODENDRON

RHODODENDRON LACEBUG (Stephanitis rhododendri Horv.)

New York. R. E. Horsey (July): The rhododendron lacebug is reported as numerous on rhododendrons at Le Roy.

I N S E C T S A T T A C K I N G M A N A N D D O M E S T I C A N I M A L S

MAN

BEDBUG (Cimex lectularius L.)

Indiana. J. J. Davis (July 28): Numerous reports of infestations have been received from the northern half of the State during the past 2 weeks.

South Dakota. H. C. Severin (June 16): We have received more complaints during the past year and spring than usual. Frequently chicken coops and houses were badly infested.

Utah. G. F. Knowlton (July 17): Reports of annoyance have been received from Santaquin, Promontory, Salt Lake City, and Magna.

FLEAS (Ctenocephalides spp.)

North Carolina. R. W. Leiby (July 5): Many towns and cities in the State are suffering from an epidemic of cat and dog fleas. The abundance is attributed to damp basements and damp ground beneath houses resulting from wet weather.

Nebraska. M. H. Swenk (July 15): Complaints of infestations of houses with the dog flea (C. canis Curt.) were received quite commonly during the period from June 25 to July 11. One case of infestation with the cat flea (C. felis Bouche) came from Wayne County.

TREE HOLE MOSQUITO (Aedes varipalpus Coq.)

Oregon. H. H. Stage (July 6): The tree hole mosquito was a serious annoyance at Lacomb. This is the first time we have found this mosquito in numbers sufficient to become a pest in Oregon.

BLACK WIDOW SPIDER (Latrodectes mactans Fab.)

Georgia. O. I. Snapp (July 3): A female black widow spider and an egg mass were found today in the weather instrument house on the laboratory grounds at Fort Valley.

Nevada. G. G. Schweis (July 20): Newspaper articles have aroused much interest in the black widow spider situation. Several specimens sent in have been identified as this species and many have proved to belong to other species.

Arizona. C. D. Lebert (July 24): More reports than normally have been brought to our attention this season regarding black widows in and around Phoenix.

Oregon. D. C. Mote and assistants (June 29): The spider is apparently more numerous in localities east of the Cascades. We have also received specimens from Roseburg, Douglas County. This is the first authentic record of its occurrence west of the Cascades.

CATTLE

SCREW WORMS (Cochliomyia spp.)

Georgia. R. A. Roberts (July 19): This insect is occurring in all directions beyond the area infested last year. Reports from the western edge of the infested area in Georgia have stated that the screw worm was active and causing losses in Muscogee County, on the Georgia-Alabama State line. On July 18 a case of screw worms in a castration wound in a calf was discovered in Effingham County, Ga. This locality is about 25 miles north of Savannah and about 75 miles north of any previously recorded infestation. The screw worm has spread into all the coastal counties of Georgia. Several cases were recorded in Long County early in the year, most of them having followed castration. The present infestations are mostly on sheep and are due to tick bites on the ears.

F. C. Bishopp (August 3): It has been impossible to gather accurate information on the number of cases, but the total is several hundred and there is much anxiety over the situation.

Florida. J. R. Watson (July 23): The screw worm continues to increase in numbers and severity in northern Florida. Hundreds of cattle and hogs and some horses have been lost.

F. S. Chamberlin (July 18): A heavy infestation is reported in Gadsden County.

J. B. Hull (July): I reared specimens of Cochliomyia sp. from a cow in southern Okeechobee County. The county agent said that he had treated 25 cases since April 17.

F. C. Bishopp (August 3): Reports have been received by the Bureau that screw worm cases have occurred in Dade County, but the flies have not been reared. There are many cases in the northern part of the State and the farmers are much concerned over the situation. Reports show that the pest is attacking livestock farther south than it did last year.

STABLE FLY (Stomoxys calcitrans L.)

Florida. F. C. Bishopp (August 3): Reports from the northwestern part of Florida indicate that the stable fly, known locally as the "dog fly", is now present in seriously annoying numbers. Livestock are so harassed

as to greatly reduce their condition and the local FERA workers have inquited about the inauguration of control projects.

Iowa. R. W. Wells (July 28): Cattle and horses in central Iowa have suffered severely. Such attacks are especially serious in cases where livestock are already weakened for want of proper grazing. The pests have also been very abundant and annoying around city dwellings and around swimming pools, where the arms and legs of persons were exposed. The outbreak followed liberal rains during the first half of July.

W. G. Bruce (July 28): This pest is as abundant and annoying at Ames as I have ever seen it. I caught some 15,000 flies on two heifers in half a day in the cattle fly trap. This pest has also been annoying to golfers on the local courses.

Missouri. L. Haseman (July 23): Abundant on cattle.

Nebraska. M. H. Swenk (July 15): The biting stable fly has proved moderately severe this summer. The most numerous reports have come from Madison County, in the vicinity of Battle Creek and Tilden, and thence west to Ericson in Wheeler County, but the flies have been more or less troublesome over all of eastern Nebraska.

GULF COAST TICK (Amblyomma maculatum Koch)

Mississippi. J. M. Langston (July 23): On July 16 a correspondent in Perry County sent to this office specimens of the Gulf Coast tick, with a report that they were causing considerable trouble by infesting the ears of sheep, cattle, and hogs.

HORSE

HORSE FLIES (Tabanidae)

South Dakota. H. C. Severin (July 16): The horse fly (Silvius pollinosus Williston) is much more abundant than usual and is causing the cattle in the infested area considerable worry.

Utah. G. F. Knowlton (July 17): Horse flies are annoying livestock in scattered localities throughout the State.

H O U S E H O L D A N D S T O R E D - P R O D U C T

I N S E C T S

TERMITES (Reticulitermes spp.)

Ohio. M. F. Howard (July): A home gardener at Columbus brought in some cabbage roots which were tunnelled with termites, probably R. flavipes Kol. for identification.

Indiana. J. J. Davis (July 28): Termites damaged chrysanthemums and geraniums in greenhouses at Logansport and La Fayette, respectively.

Mississippi. K. L. Cockerham (July): Reported as doing very serious injury to a store building and merchandise in Biloxi. Men's shirts and shoes were being damaged and the owner of the store brought a blue work shirt to the laboratory which had been entirely ruined. He stated that considerable of the merchandise had been attacked.

Kansas. H. R. Bryson (July 25): Termites are killing rhubarb plants at Burdett and infesting woodwork in the high school building at Junction City.

ARGENTINE ANT (Iridomyrmex humilis Mayr)

Louisiana. H. L. Dozier (July 19): The argentine ant is very abundant and is widely distributed over New Orleans.

Mississippi. M. R. Smith (July 20): A new infestation was found recently in Attala County by A. H. Simmons.

A FIRE ANT (Solenopsis geminata xyloni McC.)

Mississippi. M. R. Smith (July 20): Fire ants were the cause for more complaint from more sources than any other ants. Specimens were received from many localities. The ants have been reported as infesting homes, nesting in flower and vegetable gardens, as well as in lawns and yards, girdling the roots and stalks of eggplants, and gnawing holes in the pods of okra and the buds of althea.

THE DUTCH ELM DISEASE SITUATION AS OF JULY 25, 1934

The Dutch elm disease has been found in five States; namely, Connecticut, Maryland, Ohio, New Jersey, and New York. According to the latest report (July 25, 1934) in which the data are separated, 4,426 trees showing the Dutch elm disease have been found in the infected area as follows: New Jersey 3,405, New York 992, and Connecticut 29.

Scouting and eradication will be confined to the areas of known infection. The Federal funds will be used chiefly for scouting and locating the diseased trees in the States of New Jersey, New York, and Connecticut, to combat the disease where it is spreading from that area. The States concerned will use their funds chiefly for the proper destruction of the diseased trees.

For the present, the inspection work aimed at locating any unknown centers of infection will have to be cared for by the States concerned and by other agencies interested in the safety of the elms. The Department will maintain a Dutch elm disease laboratory at Morristown, N. J., where the suspicious material, either diseased elm bark and twigs or bark beetle specimens, sent in from various parts of the country, will be examined. It is hoped that the State agencies and others interested will cooperate to the fullest extent in scouting and in encouraging people throughout the elm-growing areas to send in suspicious material for examination.

The following instructions for the collection and forwarding of bark beetle specimens are given: Look for evidence of the typical engravings between the bark and the sapwood in dead and dying elms (in case of the European bark beetles, the egg galleries are generally parallel to the grain of the tree). Collect the mature beetles if found, and a complete engraving if possible. Kill the beetles in alcohol or formalin and place the material in a tight container (preferably strong cardboard, light wood, or metal) for mailing.

In all cases enclose or forward information giving the location where the samples were collected, together with as full a description as possible relative to the general conditions of the trees sampled and the extent of such conditions.